

## **Upjohn Institute Press**

## Nominal Costs, Nominal Prices, and Nominal Profits

John D. Worrall Rutgers University



Chapter 10 (pp. 251-256) in:

**Current Issues in Workers' Compensation** 

James Chelius, ed.

Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 1986

DOI: 10.17848/9780880995443.ch10

Copyright ©1986. W.E. Upjohn Institute for Employment Research. All rights reserved.

## Nominal Costs, Nominal Prices, and Nominal Profits

John D. Worrall Economics Department Rutgers University

The Berkowitz, Burton, and Williams papers ask whether costs, prices, or profits in the workers' compensation insurance market differ across "regulated states." The market is regulated in most states, including those they consider in depth: Connecticut, New Jersey, and New York. A central question they ask is what role the state (or its regulatory arm) plays in the process that generates costs, prices, and profits.

Professor Williams gives an excellent summary and description of rate regulation and price determination in both the national and regional workers' compensation insurance markets. He describes how manual rates are determined, as well as the adjustments to manual rates that affect the price actually paid. He describes the environment in both open-competition and prior approval states. He examines the underwriting profit and *contingency* factor, investment income and insurance profitability. Professor Williams is not judgmental. He is simply scholarly. He reports the pro and con arguments for open competition.

I think that given a state workers' compensation law and its basic administration, what Professor Berkowitz categorized as recordkeeping, monitoring, evaluation, and adjudication, the state and its regulatory arm will play little role in the price of workers' compensation insurance or the profitability of the business. I consider one family of exceptions later. First, I present the rationale for my judgment that the state plays a limited role.

For over half a century, workers' compensation insurance was a stable line. The actuarial estimates of program costs were generally on target and the combined ratios predictable. But in the early 1970s at least two major events eliminated this predictability. One was the impact of inflation. The other was structural change in the program, including increased benefits, brought about in part by the National Commission on State Workmen's Compensation Laws chaired by Professor Burton. These events made the accurate forecasting of losses a more difficult art. Medical costs escalated rapidly, as did indemnity claim frequency, and perhaps the durations of disability, as both real and nominal benefits rose.

As Professor Williams pointed out, writing workers' compensation insurance is a leveraged business. Over the 1970s the leverage, the ratio of either net premiums written or reserves to statutory capital and surplus or to net worth, also increased. Obviously, nominal rates of interest rose with inflation, and the nominal investment income earned by insurance companies increased with the rise in interest rates and leverage. The nominal rate of return required by all industries to attract and retain capital also rose. As regulators and others saw insurers earning increasingly larger amounts of nominal investment income, there was increasing pressure to have open competition or to include investment income in the calculation of manual rates in prior approval states.

The workers' compensation insurance market is characterized by intense price and nonprice comptition. The

market has relatively easy entry (and exit) requirements. The capitalization requirements are low in many states and insurmountable in none. There are many sellers in the market and, although some are large in absolute size, the concentration ratio (combined market share) of the top four or top eight firms is low. Firms actively in the market must compete with one another, contend with the threat of firms self-insuring and the potential entry of insurers licensed in the state but not active in the market. There are many buyers in the market, and these buyers are businesses with good prepurchase information. The basic coverage sold in the market is mandated by law, and although insurers compete vigorously on claims handling and safety services, the insurance coverage offered by insurance company A is a good substitute for that offered by insurance company B.

Insurers compete vigorously on price. They do so at the beginning of a policy period, at the end of the period, or both. Professor Williams has listed some of the methods insurers use to compete. Insurers offer firms cost-plus insurance, sliding scale dividend plans (rebate of part of the premium based on the safety record of their insured), and they alter the time flow of the premium that their insured must pay. In virtually all states, the deposit premium rule has been waived. This means that an insured and an insurer can enter into an agreement to lengthen the time over which the insured can pay a *fixed* nominal insurance premium. For example, assume the nominal price of mandated coverage is \$100. The insurer and insured can agree that this amount will be paid in a lump sum today, or in installments over N periods. The latter case could include some initial periods of zero payment. In effect, there is price flexibility downward. Prices will vary with the inflationary and real return expectations of the parties to the contract. It is difficult to imagine excessive profits being earned in markets such as the one described above.

Professor Williams pointed out that some critics argue that competition in the workers' compensation insurance markets "benefits almost exclusively the larger employers who might otherwise self-insure." The argument posed by these critics is extremely weak. Firms risk their capital in expectation that they will receive a market return, which includes a risk premium. Firms are not prohibited from writing insurance business for small risks. Many insurers do so. If there is not great downward pressure on prices for the business of smaller firms, it is because insurers do not evaluate the risk involved in writing this business to be commensurate with the rewards for writing the business. Information is available on the loss records of smaller risks (both individually and collectively). If insurers thought they would earn greater than a market rate of return writing this business, they would. Some risks end up in assigned risk pools. These firms do not end up in assigned risk pools because insurers expect to make too much money writing this business. They do not end up in assigned risk pools because insurers are charities. They end up in assigned risk pools because insurers do not expect to earn a reasonable profit writing these risks. Why? Because most states have mandated that the nominal price of insurance cannot exceed a preset limit. Although there is downward price flexibility, prices are not flexible upward. This is one of the exceptions that I mentioned earlier regarding the impact of regulation on workers' compensation prices.

The state can affect prices and profits by arbitrarily setting the price of insurance too low at the beginning of an operating period and not allowing upward price adjustments. States may also delay the implementation of new manual rates. Or regulators may shift interest rate risk to the beginning of an operating period, in effect lowering the manual rates and hence the ceiling price, and forcing more risks from the competitive market. Finally, the state may constrain the taste for risk bearing on the part of some insurers by requiring them to write business at lower leverage than the insurers would desire, or the market would dictate.

Why do workers compensation insurance prices and costs vary across states? In large part because of differences in the state: law, labor market, industrial composition, cost of living and a host of related factors. The benefits paid may differ over states as a result of variations in state workers' compensation laws and state wage distributions. Workers in a state may be willing to bear more risk or to report more injuries and file more workers' compensation claims given higher insurance benefits. Given different benefit structures across states, workers with the same tastes for risk bearing may have different accident and claim filing rates. In addition, with the same level of benefits across states, workers in different states, and in particular in different industries and occupations, may have different tastes for risk bearing. The number of occupational injuries and diseases will be a function of the industrial composition of a state. If more risky industries are concentrated in a state, the total cost of workers' compensation insurance in that state will be higher. Similarly, if the costs of accident prevention are higher in one state than another, all else constant, more injuries will take place in the high prevention cost state.

Professor Burton and Mr. Krueger examine the differences in costs to employers across states. In their research, they control for heterogeneity in the state industrial composition. Their paper gives us insight into how much of the variation in the costs to employers is due to residual factors, including regulation, market conditions, and administration. They carefully document the link between the benefits and costs of a social insurance system. Although they do not stress the point in their paper, their methodology also provides one way to compare the cost of public versus private

provision of a social insurance. They close their paper with the value judgment, "... New Jersey and New York employers had lower workers' compensation costs than did Connecticut employers, ... their achievement seems more due to parsimony than prudence." It may be that what Burton and Krueger chose to call parsimony is simply political markets working well.

Monroe Berkowitz poses the basic question, why do some states "administer" their programs by letting litigation take place, and others by aggressive and interventionist strategies. I believe political markets work. New Jersey had high permanent partial claim frequency because it was the political consensus to have it. Property rights and their administration at any point in time are reflections of the will of the people (or their power block coalitions).

The political market is the mechanism through which groups attempt to shift the cost burden of disability. Witness the existence of state insurance funds. This same political market has given us state systems for compensating permanent partial disability, and all of the headaches that go with administering such a system. The market has not yet given us a full federal system for compensating for permanent partial disability under the social security system. Much of the claimed "administrative efficiency" of that federal program, and inefficiency of state programs, is actually the market at work. And much of the role that I have ascribed to the state, including the setting of ceiling prices and leverage ratios, is simply that magnificent market at work.